U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Magnablend Chemical Fire - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #6
Final
Magnablend Chemical Fire

Waxahachie, TX
Latitude: 32.4221743 Longitude: -96.8552113

To: Ragan Broyles, Superfund Division
Dana Tulis, U.S. EPA HQ
Larry Stanton, USEPA

From: Nicolas Brescia, OSC
Date: 11/21/2011
Reporting Period:

1. Introduction

1.1 Background

Site Number:	A6CQ	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Assessment
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	10/3/2011	Start Date:	10/3/2011
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

1.1.2 Site Description

Site is a chemical manufacturing, custom blending, and packaging facility, serving the agricultural, oil and gas, and other industries. At approximately 1100, a fire and explosion occurred at the facility. The explosion occurred during a process of mixing/blending materials, the nature of which is currently being investigated.

Approximately 10 rail cars were impacted by the fire. Inspections indicated no leaks of product from the cars but one tank car has been heavily damaged by the fire. The contents of the railcars ranged from petroleum distillates to ethylene glycol. As of 2:30 pm the fire was reported as 80% contained. State

highway 287 was closed east of IH35. Approximately 1,000 individuals were evacuated (Navarro College, Wedgeworth Elementary, and two retirement homes located downwind of the plume), but the evacuation order was lifted at 5:00 pm. State Highway (SH) 287 has been reopened; however, the frontage road remains closed. TCEQ reported that three individuals have self-reported to the local hospital with unknown symptoms.

1.1.2.1 Location

The site is located near the southeast corner of the intersection of the intersection of US287 and IH35 East. Geographic coordinates are Latitude: 32.4254180 N, Longitude: 96.8854884 W.

1.1.2.2 Description of Threat

An chemical inventory list provided by the RP contains chemicals in multiple hazard classes in unknown quantities. The fire was large and produced a large black smoke plume. OSC Brescia and ERT conducted an initial assessment of the chemical inventory list and created a real time air monitoring plan to address particulate and VOC readings off site. The site is located near residential areas, commercial businesses, a college and an elementary school. Fire fighting efforts produced large quantities of runoff water which entered a creek near the facility. Due to the multiple hazard classes on site, the firewater contained many unknowns.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

On 10/03/2011, EPA On Scene Coordinators Nicolas Brescia and Brandi Todd arrived onsite at approximately 1245 hours. EPA OSCs Brescia and Todd were briefed of site situation by Waxahachie and Desoto Fire Department representatives. TCEQ representatives were on site as well as representatives from multiple other local fire departments. OSC Brescia and OSC Todd were briefed by the RP on site conditions, current status of firefighting and cleanup activities, and status of Hazmat contractors on scene. OSC Brescia contacted NARAC and requested a plume model for a 12 hour duration to assist in determining the appropriate locations to begin air monitoring activities. EPA START contractors mobilized to the scene and began perimeter air monitoring for total particulates and Volatile Organic Compounds(VOCs) at approximately 1400 hours. VOCs were not detected and all particulate air monitoring data was below established action levels. The monitoring activities were focused downwind of the plume at approximately 1/4, 1/2, and at a 1 mile radius. The EPA Aspect aircraft performed aerial reconnaissance and infrared spectrum analysis of the fire plume at approximately 1530 hours. EPA ASPECT reported the presence of Isobutylene and Propylene oxide (organic compounds) were detected in the plume at a concentration less than 1 PPM. Isobutylene is a flammable compound known to be stored on site. During air monitoring activities, OSC Brescia informed the RP that the RP needed to obtain a contractor to perform air monitoring for the duration of the incident. The RP agreed and contracted CTEH to conduct air monitoring activities.

Responsible party contractors are onsite performing containment and recovery of fire runoff water, perimeter air monitoring, and air monitoring at nearby schools. As of 2030, approximately 60,000 gallons fire water runoff has been collected and contained in frac tanks. EPA START contractors collected 4 water samples, one near the site and three downstream, to be analyzed for volatile organic compounds, semi volatile organic compounds, pesticides/PCBs, herbicides, and total metals. The National Guard 6th Civil Support Team (CST) is also onsite performing air monitoring along with TCEQ. All air monitoring activities are being coordinated through OSC Brescia and TCEQ Jeff Kunze for all state agencies and private contractors on site. All air monitoring data will be posted to epaosc.org as it is received. If action levels are reached for particulate of VOCs, the RP is to notify EPA and TCEQ immediately. EPA and TCEQ created a air monitoring/sampling plan to be followed by the RP. The plan covers action levels for particulate and VOCs and directions on when to collect air samples as needed.

On 10/04/2011, EPA OSC Brescia and TCEQ Jeff Kunze met with the RP's chemist and went over the chemical inventory list. The RP's chemist informed OSC Brescia and TCEQ Jeff Kunze that the majority

of the products on site were used in animal feed additives. The RP's chemist verified the contents on site and the contents in the railcars. The RP chemist's primary concerns for byproducts in the fire are soot from combustion with associated sulfur compounds. A small amount of resins would also contribute to combustion products. OSC Brescia and TCEQ Kunze requested a labeled site map showing product location. No anhydrous ammonia was ever present on site.

OSC Brescia and TCEQ Kunze formalized a reporting period for the RP to provide operational briefings on the status of monitoring and cleanup activities. The RP installed fences around firewater drainage basin areas including the basin next to the elementary school down gradient per OSC direction. The RP continued to conduct air monitoring operations within and outside the perimeter of the facility. The RP continued to recover firewater from the drainage basins. Approximately 300,000 gallons of firewater has been collected to date. Initial estimates of remaining fire water to be recovered is 700,000 gallons. The RP began preparing multiple work plans to be reviewed by the OSC and TCEQ prior to implementation. The RP inspected the railcars and is working with BNSF on potential movement of the railcars once the area has been cleared by the initial Hazmat team during removal operations of containers. The RP's initial report is that several of the railcars were damaged by the fire, but that further assessment is necessary. The RP reports that the railcars are stable and that no leaks are present. The RP began implementing the ICS system and created a draft Incident Action Plan(IAP) for review. A formalized IAP will be provided to OSC Brescia and TCEQ Kunze by the end of the day to approve 10/05/11 operations. A local Public Information Officer (PIO) was stood up on site to field any local health concerns. PIO information was submitted to the R6 office.

Air monitoring was conducted by the RP, EPA, TCEQ and CST. Mobile and permanent stations were set-up at many locations to provide real time data for particulate and VOCs. After initial review of the air monitoring data, several air monitor readings indicated elevated levels of particulates. Both the RP contractor and the EPA contractor found readings for particulates in the 100-125 ppb range. These readings were not sustained in the areas monitored for long periods of time. OSC Brescia and TCEQ Kunze are currently evaluating the data to determine if any prolonged periods occurred. Many of the readings are associated with monitoring locations directly within and downwind of the plume. One location was next to the Hampton Inn on John Arden Road. Monitoring Data has been submitted to EPA R6 for review. SO2 was detected between the property line and the frontage road of HWY 287. Confirmation monitoring indicated an elevated level of SO2 on the property and outside of the fenced area. Levels are currently below Short Term Exposure Limits and the area will be monitored by the RP's contractor to determine if levels persist.

The Navarro College was reopened once fencing was placed outside of its parking area to eliminate access to drainage areas containing firewater.

CTEH reported that water samples they collected on 10/3/11 identified a number of potentially hazardous chemicals in the drainage basin but did not identify any hazardous chemicals in the ponds. EPA expects to receive START water sampling results early 10/4/11.

A labeled site map showing product location was delivered to OSC Brescia and TCEQ Kunze at 1900.

OSC Brescia and TCEQ Kunze requested the RP extinguish the smoldering debris in order to quickly eliminate smoke migrating off-site. The RP informed OSC Brescia and TCEQ Kunze that a fire suppression crew will arrive on 10/05/11 to begin suppression activities using firefighting foam. OSC Brescia will provide ASPECT imagery indicating hot spots to assist the RP crew in the activities.

On 10/5/2011:
RP contractors applied AFFF and water in an effort to extinguish the fire. Excavators were utilized to move debris in an effort to break up the hot spots. More than 97% of the fire has been extinguished. Several small hot spots continue to burn but the size of the smoke plume has diminished considerably. RP contractors estimate the fire will be completely extinguished on 10/6/2011.

The RP has begun removing and staging product totes from the facility in a clean area to determine reuse or disposal. Approximately 170 totes have been staged in a clean area away from the facility. The RP created a site map for the staging area and is working with the RP chemist on proper segregation of the intact containers on site.

OSC Brescia and START conducted a site walk on the facility property with RP contractors and local fire

department representatives. EPA documented the condition of the facility and the initiation of clean-up activities.

Sulfur Dioxide was detected by RP contractors at levels above background at an industrial facility across the highway to the north of the site. RP contractors notified EPA representatives on-site of the elevated readings. The readings were collected inside the industrial facility building. These elevated readings were not duplicated by START air monitoring team using similar equipment at the same time. Possible explanations for the elevated readings could be positive cross sensitivities on the electrochemical sensors used to detect sulfur dioxide. EPA and TCEQ informed the RP of SO2 action levels per ERT consultation for any future elevated SO2 readings detected during monitoring operations. START is providing periodic monitoring of the affected offsite area, outside of the industrial facility. START continued to conduct air monitoring operations. Elevated readings were found downwind of the plume in unpopulated areas.

The Lifoam facility located across Highway 287 from the facility reported an illness possibly related to the fire. Investigation by OSC Brescia and TCEQ Kunze revealed that the individual was photographing the fire from within the plume area during the initial stage of the fire. The individual was diagnosed with carbon monoxide poisoning.

Approximately 80% of the offsite contaminated firewater (600,000 gal) has been collected and is currently stored in onsite frac tanks. RP contractors began sampling frac tanks and contaminated soils and sediment for disposal profiling.

EPA published initial air monitoring results on the following EPA public webpage: http://www.epa.gov/region6/newsevents.

EPA received START sampling results for the drainage basins and ponds. These results will be assessed by Region 6 toxicologists.

On 10/06/2011, RP contractors continued to apply AFFF to hotspots. Approximately 70 gallons of AFFF was applied today. RP is confident that the hot spots will be extinguished by 10/07/2011. RP moved approximately 116 containers (drums, totes, etc) from the site to the staging area. Approximately 424 containers have been removed from the impacted area and moved to the staging location for additional analysis for disposal. RP contractors identified approximately 70 drums containing material in poor condition and/or bulging within the plant. RP is working on a plan to address the containers for proper handling.

RP Contractors also continued working to obtain access to surrounding property to perform contaminated soil excavation. In preparation for a potential rain event on 10/08/2011, the RP constructed additional berms and sumps on site to control any runoff water created. The RP continued to conduct air monitoring inside and outside of the facility.

A small amount of remaining firewater was collected today. RP contractors ordered approximately 155 roll off boxes for Monday delivery to contain waste on site during removal activities.

EPA START contractors and TCEQ continued to conduct air monitoring operations downwind of the plume area. Elevated levels of particulates were detected at two locations downwind of the plume. No VOC action levels were reached. Particulate readings have significantly reduced due to the small amount of smoke coming off the hot spots.

On 10/07/2011, the RP extinguished the last hot spot on site causing the smoke to dissipate. The strong odor associated with the smoldering has been significantly reduced since the hot spots have been put out. The odor coming from the facility is associated with sulfur compounds used in the animal feed additives. No VOCs or SO2 have been detected in harmful levels on or off-site. RP is using heavy equipment to move containers and scrap metal off of the site. Disturbance of the debris pile by the equipment and increased wind speeds are creating elevated particulate readings downwind of the facility. OSC Brescia informed the TCEQ of these readings so that potential engineering controls by the RP could be put in place during removal operations.

RP is continuing to work site access and permit issues to begin excavation activities. Due to the fact that the immediate public health threat no longer exists, OSC Brescia has transitioned RP oversight to the

TCEQ for future removal operations. TCEQ has agreed to provide oversight to RP for all remaining removal activities.

Polrep #2 Update: Additional data collected after submittal of the polrep indicated that particulate ranges were between 3-2207ppb. The highest readings were found at the facility boundary within the plume.

EPA water sampling analytical data, from samples collected on 10/3/11, were compared to the TRRP Aquatic Life Surface Water Risk-Based Exposure Limits (SWRBELs) for Freshwater Acute Criteria. The water samples were analyzed for VOCs, SVOCs, Pesticides/PCBs, Herbicides and Metals. The Surface Water Anaytical Result Table and Surface Water Sample Location Map are located under the document section.

Sample MAGSW-001 had exceeedances for metals including Aluminum, Cadmium, Copper, Selenium, Silver and Zinc. There was also an exceedence for Trimethylbenzene. Sample MAGSW-001 and MAGSW-002 were duplicates that were collected in the storm water ditch adjacent to the rail line at John Arden Road. Samples MAGSW-003 and MAGSW-004 were collected from private ponds in the drainage pathway south of John Arden Road. These samples had exceedences for Copper only. Sample MAGSRC-001 was collected from firefighting water as it flowed downgradient from the facility property. This sample had exceedences for Aluminum, Cadmium, Copper, Lead, Magnesium, Nickel, Selenium and Zinc. There was also an exceedence for Trimethylbenzene in this sample. EPA water analysis were provided to ATSDR and TXDOH.

EPA received RP contractor CTEH air sampling and water sampling analytical data and provided it to ATSDR and TXDOH.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Responsible Party is Magnablend, Inc.

2.1.4 Progress Metrics

Waste Stream	***Medium***	***Quantity***	***Manifest #***	***Treatment***	***Disposal***

2.2 Planning Section

2.2.1 Anticipated Activities

None

2.2.1.1 Planned Response Activities

None

2.2.1.2 Next Steps

None

2.2.2 Issues

None

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
TAT/START	$80,000.00	$55,000.00	$25,000.00	31.25%
Intramural Costs				
USEPA - Direct	$45,000.00	$35,500.00	$9,500.00	21.11%
Total Site Costs	$125,000.00	$90,500.00	$34,500.00	27.60%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.